

Notice of Allowability

Application No.

10/760,663

Examiner

Ted Kim

Applicant(s)

SABATINO ET AL.

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/04/2007.
2. ☒ The allowed claim(s) is/are 11-14, 17-27 and 29-34.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Wisz on 6/25/07.

The application has been amended as follows:

CLAIMS

Claims 15, 16, 28 have been cancelled

11. (CURRENTLY AMENDED) A method of thermal management within a vehicle having a gas turbine engine comprising the steps of:

- (1) deoxygenating a fuel onboard the vehicle to provide a deoxygenated fuel;
- (2) communicating the fuel through a first liquid-to-liquid heat exchanger system operable at a first maximum temperature;
- (3) communicating the deoxygenated fuel through a second liquid-to-liquid heat exchanger system operable at a second maximum temperature, said second maximum temperature greater than said first maximum temperature; communicating the deoxygenated fuel and an oil through the second liquid-to-liquid heat exchanger, the oil effective above approximately 325 degrees Fahrenheit and permitting the deoxygenated fuel to exceed 325 degrees Fahrenheit.

20. (CURRENTLY AMENDED) A method of thermal management within an aircraft fuel system comprising the steps of:

- (1) communicating fuel from an aircraft fuel tank;
- (2) deoxygenating the fuel on-board the aircraft to provide a deoxygenated fuel;
- (3) communicating the fuel through a first liquid-to-liquid heat exchanger system in communication with a first oil loop operable at a first maximum temperature;
- (4) communicating the deoxygenated fuel through a second liquid-to-liquid heat exchanger system in communication with a second oil loop operable at a second maximum temperature after said steps (2) and (3), said second maximum temperature greater than said first maximum temperature; communicating the deoxygenated fuel and an oil effective above approximately 325 degrees Fahrenheit in the second oil loop through the second liquid-to-liquid heat exchanger; and permitting the deoxygenated fuel to exceed a temperature of approximately 325 degrees Fahrenheit.

31. (CURRENTLY AMENDED) A method of thermal management within an aircraft fuel system comprising the steps of:

- (1) deoxygenating the fuel on-board the aircraft to provide a deoxygenated fuel;
- (2) communicating the fuel through a first liquid-to-liquid heat exchanger system in communication with a first oil loop operable at a temperature below approximately 325 degrees Fahrenheit; and
- (3) communicating the deoxygenated fuel through a second liquid-to-liquid heat exchanger system in communication with a second oil loop operable at a temperature above approximately 325 degrees Fahrenheit after said steps (1) and (2) and permitting the deoxygenated fuel to exceed a temperature of approximately 325 degrees Fahrenheit.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: the prior art of record do not fairly teach in permissible combination the claimed invention. The affidavits filed 05/04/2007 are persuasive and Huang has been withdrawn. The amendments made above serve to distinguish over the Coffinberry combination in that there is no teaching for using the high temperature oil effective above approximately 325 degrees Fahrenheit in combination with the permitting the deoxygenated fuel to exceed 325 degrees Fahrenheit. While Spadaccini et al (Fig. 9) teach at least one heat exchanger 106 (col. 6, lines 54-65), there is no hint of the use of high temperature oil effective above approximately 325 degrees Fahrenheit when the 2nd heat exchanger permits the deoxygenated fuel to exceed 325 degrees Fahrenheit. Likewise the admitted prior art (Conventional art -- Fig. 1) of the affidavits filed 05/04/2007, do not teach the temperature range for the oil nor the 2nd heat exchanger permits the deoxygenated fuel to exceed 325 degrees Fahrenheit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The


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Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax number for the organization where this application is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg, can be reached at 571-272-4828. Alternate inquiries to Technology Center 3700 can be made via 571-272-3700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>



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June 25, 2007

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